

4480

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Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
State: <u>California</u>
11-5513
DESCRIPTIVE REPORT.
<i>Hydrographic</i> Sheet No. <u>4480</u>
LOCALITY:
<u>San Pedro Channel</u>
<u>Los Angeles Harbor</u>
<u>1925</u>
CHIEF OF PARTY:
<u>T. J. Maher</u>

DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

Col. E. Lester Jones, Director.

DESCRIPTIVE REPORT OF HYDROGRAPHIC SURVEY OF
SAN PEDRO HARBOR SAN PEDRO CALIFORNIA

STEAMER GUIDE MAY 1925

T J MAHER
COMMANDING OFFICER

for Los Angeles (San Pedro) Harbor, California.

The resurvey of the harbor of Los Angeles (San Pedro), California was made in pursuance of the Director's orders of May 2 1925.

2. The purpose of the survey was to locate and determine the least depth of reported shoal areas in Los Angeles Harbor.

3. The sounding lines were run mostly on ranges, and soundings taken with lead lines, the corrections to which are shown in the record.

4. The survey of the area "A" to the northward of "Engineer's Beacon" on the San Pedro Breakwater was sounded, using hand lead, and the least depth found was 15 feet, rocky bottom. A wire drag was improvised and at 3:45 P.M. on May 15th, with drag set for 21 feet at each upright, the drag hung up on this 15 foot spot. Tidal reduction of 4.1 feet, gave height of wire below plane of reference as 17 feet. Sounding with lead line gave 19 feet or 15 feet when corrected for tide.

At 3:55 P.M., same day, the drag was set for 18 feet at each upright and passed clear of all obstructions, tidal reduction 4.2 feet showing no obstruction with less than 14 feet depth at mean lower low water. A check of the uprights of the drag at the end of the day showed the uprights to be about a half foot shorter than first measurements.

5. The area "B" around the temporary (C. & G. S.) buoy south of Weldt Rock Buoy was sounded with the hand lead, running radial lines to and from the buoy and showed no depth of less than 31 feet, tidal reduction applied.

6. On account of congested soundings in the areas "A" and "B" enlargements were made on a scale of 1:1000 and all soundings plotted. The characteristic soundings of area "A" were taken from the enlargements and replotted on the 1:5000 area.

7. The 15 foot spots shown on area "A" were of small extent. The lead evidently striking rocks about four feet higher than the level of the bottom around there. The harbor engineer states that this area shown on his charts, consists of irregular shale spots alternating with soft mud which was borne out by the soundings.

8. The area south of Red Beacon No. 2 shows a least depth of 25 feet near position 23C just south of a line from Beacon No. 2 to Breakwater Light House and about 275 yards from Beacon No. 2. The center of the area shows 26 feet as least depth with a large area of 27 feet sticky bottom.

Report by G. D. Tomic. Survey by L. R. Rayson
Dredging operations will probably invalidate the
survey, except perhaps the area northward of the
Engineer's Beacon where the 15 ft. spot was found.

J. H. Allen
Dec 11, 1925.

Statistics for Los Angeles Harbor sheet

<u>Date.1925</u>	<u>Letter</u>	<u>Volume</u>	<u>Positions</u>	<u>Soundings</u>	<u>Miles</u>	<u>Vessel</u>
C 13	a	1	33	130	2.4	Motor Sailor
" 14	b	1	111	436	7.0	" "
" 15	c	1	24	95	0.6	" "
" 18	d	1	133	495	9.2	" "
" 19	e	2	80	331	5.75	" "
Total			381	1487	24.95	

Remarks:-

Soundings are in feet.

Plane of reference, Mean Lower Low Water.

Tide gauge is Automatic Tide Gauge. Los Angeles Harbor (San Pedro) , Calif.

Tidal data furnished from Washington Office.

Plane of reference, reading on gauge = 3.5 feet.

Lowest tide observed "	"	"	=	3.1	(From data sheets)
Highest tide observed "	"	"	=	9.4	(From data sheets)

POSITIONS LOCATED BY SEXTANT CUTS.

LOS ANGELES HARBOR SHEET. CALIFORNIA.

Engineer's Beacon	Lat. 33°	42'	D.M. 1019.8 meters
San Pedro Breakwater	Long. 118°	16'	D.P. 1105.9 meters
Red Beacon No. 2.	Lat. 33°	43'	D.M. 181.0 meters
Entrance to docks	Long. 118°	16	D.P. 71.0 meters

LLW = 3.5 feet

Tide Gauge
No. 1000
LLW = 3.5 feet

TIDES: TIDE GAUGE HEIGHTS

Station: Los Angeles Harbor, Calif. Year: 1925

Observer: Lat. Long.

Time Meridian: Tide Gauge No. 1000 Scale 1: Reduced to Staff. —

Month and Day	mo.	d.	d.	d.	d.	d.	d.	d.	d.	Horizontal Sum
May 7			8	9	10	11	12	13		
Hour	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	
0	4.8	5.2	6.2	7.5	8.2	8.8	9.0	49.7		
1	3.6	4.0	4.8	6.0	7.1	7.8	8.8	12.1		
2	3.2	3.2	3.4	4.4	5.8	6.6	7.9	34.5		
3	3.2	2.9	2.6	3.2	4.0	5.2	6.8	27.9		
4	3.8	3.3	2.7	2.5	3.0	4.0	5.6	24.9		
5	5.1	4.3	3.3	2.6	2.5	3.2	4.4	25.4		
6	6.4	5.3	4.6	3.3	2.5	2.8	3.6	28.5		
7	7.3	6.8	5.8	4.4	3.0	2.9	3.2	33.4		
8	7.8	7.6	6.8	5.7	4.2	3.6	3.2	38.9		
9	7.6	8.0	7.4	6.5	5.4	4.7	3.8	43.4		
10	7.0	7.6	7.8	7.4	6.4	5.6	4.6	46.4		
11	6.0	6.9	7.6	7.4	7.1	6.5	5.6	47.1		
Noon	5.0	6.0	6.8	7.0	7.2	7.1	6.4	45.5		
13	4.4	5.2	6.0	6.4	6.8	7.2	7.0	43.0		
14	4.2	4.6	5.3	5.8	6.4	7.1	7.3	40.7		
15	4.8	4.6	5.0	5.3	5.8	6.6	7.2	39.3		
16	5.8	5.4	5.2	5.2	5.6	6.2	7.0	40.4		
17	7.0	6.4	6.0	5.7	5.6	6.0	6.6	43.3		
18	8.3	7.8	7.0	6.6	6.0	6.2	6.3	48.2		
19	9.2	8.9	8.3	7.7	6.8	6.5	6.2	53.6		
20	9.6	9.6	9.4	8.8	7.8	7.2	6.2	58.6		
21	9.0	9.7	9.9	9.6	8.7	7.9	6.5	61.3		
22	8.0	9.0	9.8	9.7	9.2	8.6	7.0	61.3		
23	6.5	7.9	9.0	9.3	9.2	8.9	7.6	58.4		
Sum	147.6	150.2	150.7	148.0	144.3	147.2	147.8	1035.8		

Sum for month of

Divisor = (28d) 672; (29d) 696; (30d) 720; (31d) 744. Mean for month =

Tabulated by C. L. Waldron Date 7/9/25 Summed by E. A. Lyman Date 7/23/25

TIDES: HOURLY HEIGHTS

Station: Los Angeles Harbor, Calif. Year: 1925

Observer: _____ Lat. _____ Long. _____

Time Meridian: _____ Tide Gauge No. _____ Scale 1: _____ Reduced to Staff. _____

Month and Day	mo.	d.	d.	d.	d.	d.	d.	d.	Horizontal Sum
May	14	15	16	17	18	19	20		
Hour	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	
0	8.1	7.0	6.0	5.2	4.6	4.6	4.6	4.6	40.1
1	8.4	7.5	6.6	5.4	4.5	4.1	3.8		40.3
2	8.2	7.8	7.3	6.1	5.0	4.2	3.6		42.2
3	7.7	8.0	7.7	6.9	5.8	4.8	4.0		44.9
4	6.9	7.7	7.9	7.4	6.6	5.9	4.8		47.2
5	5.9	7.1	7.6	7.9	7.5	6.8	6.0		48.8
6	4.8	6.3	7.0	7.8	7.9	7.6	7.0		48.4
7	3.8	5.3	6.2	7.3	8.0	8.0	7.7		46.3
8	3.3	4.3	5.2	6.5	7.4	7.9	7.9		42.5
9	3.1	3.6	4.2	5.6	6.6	7.1	7.6		39.8
10	3.5	3.3	3.6	4.6	5.6	6.2	6.8		33.6
11	4.2	3.6	3.5	4.0	4.8	5.2	6.0		31.3
Sum	5.1	4.4	4.0	4.0	4.3	4.6	5.6		32.0
13	6.0	5.4	5.0	4.4	4.4	4.5	5.0		34.7
14	6.9	6.5	6.0	5.4	5.0	5.0	4.8		39.6
15	7.4	7.3	7.0	6.5	6.0	5.9	5.2		45.3
16	7.4	7.7	7.8	7.6	7.2	7.0	6.0		50.7
17	7.2	7.9	8.3	8.4	8.3	8.0	7.2		55.3
18	6.9	7.6	8.2	8.8	9.0	9.1	8.4		58.0
19	6.5	7.1	8.0	8.6	9.0	9.4	9.2		57.5
20	6.2	6.5	7.2	8.0	8.6	9.0	9.5		55.0
21	6.0	5.9	6.4	7.0	7.8	8.0	9.0		50.1
22	6.2	5.6	5.8	6.0	6.6	7.0	8.0		45.2
23	6.5	5.6	5.4	5.2	5.6	5.6	6.6		40.5
Sum	146.2	149.0	151.9	154.6	156.1	155.5	154.3		1067.6

Sum for month of _____

Divisor—(28d) 672; (29d) 696; (30d) 720; (31d) 744. Mean for month=

Tabulated by E. A. Bredem

Date 7/19/25

Summed by E. A. Bredem

Date 7/23/25

WWB
NOV 4 - 1925

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4480

Locality: Los Angeles Harbor, Calif.

Chief of Party: T. J. Maher in 1925.

Plane of reference is
3.5ft. on tide staff at San Pedro

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Report on Hyd. Sheet 4480

Surveyed in 1925

Chief of Party - T. J. Maher

Surveyed by - L. P. Raynor

Projected by - W. F. White and G. D. C

Soundings plotted by - G. D. C

Verified and inked by - H. E. MacEwen

1. The records conform to the requirements of the general instructions except that "boat corner by compass" readings were omitted throughout.
2. The plan and character of the development fulfil the requirement of the general instructions.
3. The plan and extent of the development satisfy the specific instructions.
4. Sounding line crossings are adequate.
5. The usual depth curves can be drawn.
6. The plotting was completed to the extent prescribed in the general instructions. See Remarks.
7. With the exception of the respacing of soundings to correspond to time intervals ^{in out ang B.}, the office draftsman did not have to do over any part of the drafting done by the field party. See Remarks.
8. No further surveying is required to fully develop the areas covered by this survey.

9. Remarks:

In subdivision area A the field draftsman failed to plot all the positions and soundings that fall within the corresponding area on the 5000 scale section. On several lines the spacing of soundings had to be rearranged to correspond with the time recorded.

In subdivision B. many changes were necessary in the plotting of positions and most of the soundings in this area had to be respaced to correspond with the time intervals recorded.

11. ~~The~~ Rating of work.

- a. Character and scope of surveying: Excellent.
- b. Field drafting: Fair.

Respectfully submitted

H. Edm. Swan

F.R. Section.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

December 17, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4480

Los Angeles Harbor, California

Surveyed in 1925

Instructions dated May 6, 1925

Chief of Party, T. J. Maher.

Surveyed by L. P. Raynor.

Protracted by W. F. White and G. B. Cowie.

Soundings plotted by G. D. G.

Verified and inked by H. E. MacEwen.

1. The records conform to the requirements of the General Instructions except that boats' courses were omitted.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions. Four 15 foot soundings were obtained on the position of the reported 16 1/2 foot spot and the area was cleared by a drag set at 14 feet effective depth.
4. The sounding line crossings are adequate and the information is sufficient for drawing the usual depth curves.
5. The usual field plotting was done by the field party. The work was well done except in the enlargements, where extensive changes in boats' positions and re-spacing of sounding lines to conform to time intervals were necessary.
6. No further surveying is required within the area covered by the sheet.
7. The character and scope of the surveying are excellent and the field drafting is fair.
8. Reviewed by E. P. Ellis, December, 1925.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4480

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4480

State California

General locality Los Angeles Harbor

Locality San Pedro Channel

Chief of party T.J. Maher

Surveyed by L.P. Raynor

Date of survey May 13 - 19, 1925

Scale 1:5000 with inserts 1:1000

Soundings in Feet

Plane of reference Mean lower low water

Protracted by W.F.W. & G.D.C. Soundings in pencil by G.D.C.

Inked by . . . G.D.C. Verified by W.F.M.

Records accompanying sheet (check those forwarded):

Des. report, 0 Tide books, 0 Marigrams, 1 Boat sheets,

2 Sounding books, 0 Wire-drag books, 0 Photographs.

Data from other sources affecting sheet Triangulation position from

List of Geographic Positions furnished by office.

Remarks: